



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/639,461

08/13/2003

Gordon Yu

YUGO3008/EM

5734

23364

7590

07/26/2004

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ALEXANDRIA, VA 22314

EXAMINER

HARVEY, JAMES R

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/639,461

Applicant(s)

YU ET AL.

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 8-13-03 (original papers).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

***Priority***

- Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Drawings***

- The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.
  - In reference to Claim(s) 1, line 3, the limitation "connector extending from the circuit board" is not shown.
  - In reference to Claim(s) 1, line 3, the limitation "substrate" is not shown.
  - The above feature(s) must be shown or the feature canceled from the claim. No new matter should be entered.
- Please note that drawing corrections will no longer be held in abeyance. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.
- If drawing correction are not submitted with the response to this office action, the response will be consider a Non-Responsive Reply and the following paragraph will apply:

The reply filed on ( ... ) is not fully responsive to the prior Office Action because: (...) Since the period for reply set forth in the prior Office action has expired, this application will become abandoned unless applicant corrects the deficiency and obtains an extension of time under 37 CFR 1.136(a).

The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. In no case may an applicant reply outside the SIX (6) MONTH statutory period or obtain an extension for more than FIVE (5) MONTHS beyond the date for reply set forth in an Office action. A fully responsive reply must be timely filed to avoid abandonment of this application.

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### *Claim Objections*

- Claim(s) 1-8 are objected to because of the following informalities:

-- In reference to Claim(s) 1, line 1, the recitation "a substrate having a circuit board" is seen to be a translation error. The drawing show a substrate that is a printed circuit board. For purposes of examination, it is assumed that the language is intended to mean "a substrate that is a printed circuit board". An examination based on the merits, as best understood, is addressed below.

-- In reference to Claim(s) 2, the recitation "a small hollow object for being inserted with the micro-storage device" is seen to be a translation error. For purposes of examination, it is assumed that the language is intended to mean "a small hollow object for holding the micro-storage device"

-- In reference to Claim(s) 8, the recitation "on an opposite of the connector" is seen to be a translation error. For purposes of examination, it is assumed that the language is intended to mean "in an opposite place than the connector". An examination based on the merits, as best understood, is addressed below.

-- In reference to Claim(s) 1-8, they are objected to because the claims, specification, and abstract are replete with instances of poor grammar and terminology that are apparently due to translation errors. The entire application should be reviewed and corrected to comply with standard USPTO practice.

-- Appropriate response to the above is required.

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Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

\*\* Claim(s) 1 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Marsh (5330360 ).

-- In reference to Claim(s) 1, Marsh shows (cover sheet)

a substrate that is a printed circuit board 30 and a connector 40 extended from the circuit board, wherein the connector is arranged with a plurality of contacts 160 (figure 4 ) for electrically connecting to an external electronic apparatus;

at least one electronic component 130 mounted on a surface of the circuit board 30; and

a metal case 70 housing the substrate and the electronic component 130 and having an opening at the connector 40 for coupling to the external electronic apparatus.

The recitation “using an advance package technique” is seen as a method of forming an electrical connection to the printed circuit board. The method of forming, the electrical connection is not germane to the issue of patentability of the device itself. Therefore, this recitation has only been given little patentable weight because it does not further limit the claimed structure.

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*Claim Rejections - 35 USC § 103*

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

\*\* Claim(s) 1-3, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott et al. (6671808 ) in view of Tirosh (6618243 ) or, in the alternative, further in view of Sobhani (5213511 ).

-- In reference to Claim(s) 1, Abbott shows (cover sheet)

a substrate that is a printed circuit board 206 (figure 2a ) and a connector (column 8, lines 34-36 ) extended from the circuit board, wherein the connector is arranged with a plurality of contacts 302 (figure 3 ) for electrically connecting to an external electronic apparatus;

at least one electronic component (processor, 212 ) (column 5, line 61 ) mounted on a surface of the circuit board 206; and

The recitation “using an advance package technique” is seen as a method of forming an electrical connection to the printed circuit board. The method of forming, the electrical connection is not germane to the issue of patentability of the device itself. Therefore, this recitation has only been given little patentable weight because it does not further limit the claimed structure.

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Abbott shows the metal shell 602 (figure 6h ) housing pins 302 and having an opening at the connector for coupling to the external electronic apparatus.

However, Abbott does not show a metal case housing the substrate and the electronic component. The housing of Abbott that houses the substrate and the electronic component is made of plastic (column 8, line 37 ).

Tirosh teaches that the housing can be made of plastic or metal (column 5, lines 35-37 ).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Tirosh to improve the arrangement of Abbott because making the housing out of metal protects the electrical components from electromagnetic interference.

With regard to the previously mentioned alternative, Sobhani teaches that TAB is an advanced packaging technique (column 2, line 20 ).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the arrangement of Abbott with the advanced packaging teachings of Sobhani because, as taught by Sobhani (column 2, line 23 ), it lowers costs and provides higher reliability.

-- In reference to Claim(s) 2, Abbott shows substantially the invention as claimed. However, Abbott does not show a small hollow object for holding the micro-storage device thereby conveniently carrying the micro-storage device.

Tirosh shows (cover sheet) a small hollow object 18 for holding the micro-storage device 12 (figure 10 ) thereby conveniently carrying the micro-storage device 12.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the storage device shown by Tirosh with the arrangement of Abbott because, as

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taught by Tirosh (column 1, line 26 ) the storage device makes it convenient for transporting the electrical component and connector.

-- In reference to Claim(s) 3, Tirosh shows the small hollow object is a personal adornment (column 1, line 31).

-- In reference to Claim(s) 5, Tirosh shows the structure is a personal adornment (column 1, line 31 ) and has the same structure that it can function as a tie clip. Further, the meaning of "tie clip" is so broad that it is met by the applied reference showing an ornament the can function to hold ends of a necktie to a shirt front (see the attached definition from The American heritage Dictionary).

-- In reference to Claim(s) 8, Abbott shows (figure 2a ) electronic components (250, 252 ) mounted in an opposite place than the connector in the substrate to effectively utilize space.

\*\* Claim(s) 4 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott in view of Tirosh and further in view of Dierking (5775485).

-- In reference to Claim(s) 4, Abbott as modified by Tirosh shows substantially the invention as claimed.

However, neither Abbott or Tirosh show the personal adornment is a necklace. Tirosh shows ring 22 is a key ring, but does not mention the recitation necklace.

Dierking teaches that ring 14 can be for a key ring or a necklace.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ring 22 of Tirosh as a ring for a necklace because, as taught by Dierking

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(abstract, line 13 ), it lessens the chance of losing the contents or to facilitate simple removal of the contents (column 1, line 46).

\*\* Claim(s) 6 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott in view of Tirosh and further in view of Sobhani (5213511 ).

-- In reference to Claim(s) 6, Abbott as modified by Tirosh shows substantially the invention as claimed. However, neither Abbott or Tirosh show the advance package technique is a Chip On Board (COB).

Sobhani teaches that Chip-On Board technology is an improvement over conventionally solder connections (column 1, line 65 ) and (column 1, line 28 ) respectively.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connection arrangement of Abbott with the teachings of Sobhani because, as taught by Sobhani (column 1, 68 ) Chip-On Board methods improve electrical performance.

\*\* Claim(s) 7 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott in view of Tirosh and further in view of Anderson (5973734 ).

-- In reference to Claim(s) 7. Abbott as modified by Tirosh shows substantially the invention as claimed. However, neither Abbott or Tirosh discuss the electronic component comprises a non-volatile memory to store data.

Anderson teaches the use of non-volatile memory (column 4, line 65 ).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the arrangement of Abbott as modified by Tirosh with the non-volatile memory teachings of Anderson because, as taught by Anderson (column 5, line 1 ) non volatile memory typically stores instructions to control the external electronic apparatus.

### *Conclusion*

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Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent related matters must now be addressed to:

**Commissioner for Patents**

**P. O. Box 1450**

**Alexandria, VA 22313-1450**

For additional information regarding the new address, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

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- The prior art listed on PTO form 892 that is made of record and not relied upon is considered pertinent to applicant's disclosure because it shows the state of the art with respect to applicant's claimed invention. In reference to Wu, Wu shows (cover sheet) a small hollow object 12 for holding the micro-storage device 11 thereby conveniently carrying the micro-storage device.
  - Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 703-305-0958. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.


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- Effective **October 1, 2003**, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, **(703) 872-9306**, with a few exceptions. *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000). Replies to Office actions including after-final amendments that are transmitted by facsimile must be directed to the central facsimile number. Unofficial correspondence such as draft proposed amendments for interviews may continue to be transmitted by facsimile to the Technology Centers. *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000).

James R. Harvey, Examiner

jrh  
July 21, 2004



TRUC T. NGUYEN  
PRIMARY EXAMINER

## tie clasp

**tie clasp** *noun*

An ornamental clasp that holds the ends of a necktie to the shirt front. Also called *tie clip*.

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## a·dorn·ment

a·dorn·ment (ə-dôrn'ment) *noun*

1. The act of adorning.
2. Something that beautifies or adorns; an ornament. "*Japanese food is on the whole superb, one of the adornments of the culture*" (James Fallows).

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## neck·lace

neck·lace (něk'ls) *noun*

1. An ornament worn around the neck.
2. Something felt to resemble this neck ornament, as in shape: *a necklace of hundreds of tiny islands.*

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